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[This Drawing is a reproduction of the Original on a reduced scale]

Fig. 1.

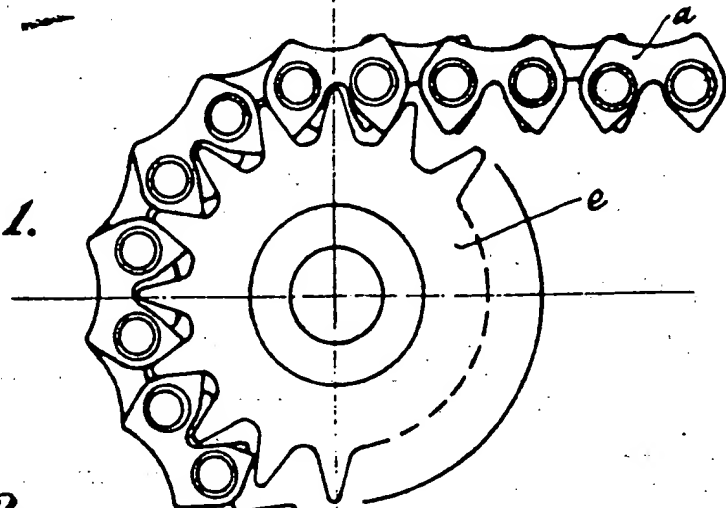


Fig. 2.

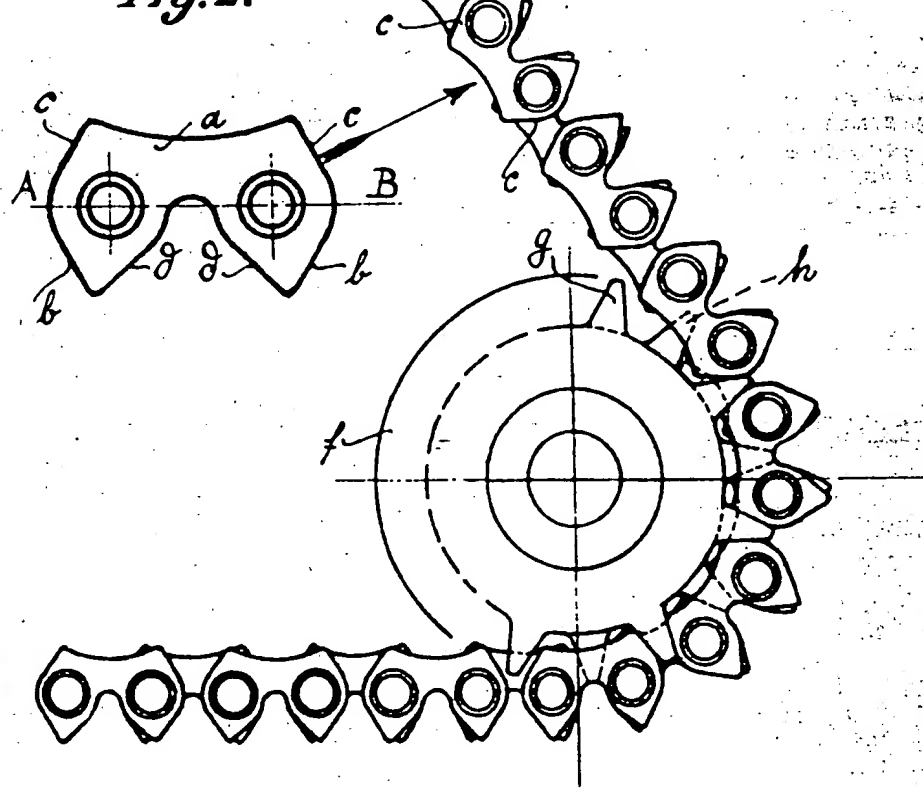
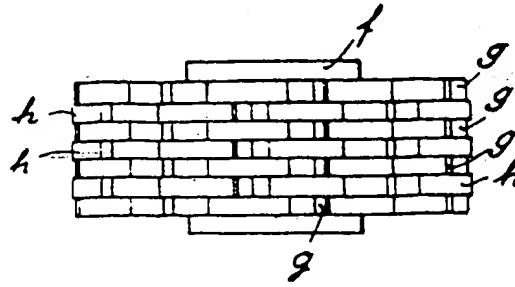


Fig. 3.



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PATENT SPECIFICATION



230,839

Convention Date (Germany): March 13, 1924.

Application Date (In United Kingdom): March 12, 1925. No. 6725/25.

Complete Accepted: Aug. 27, 1925.

COMPLETE SPECIFICATION.

Improvements in or relating to Chain Driving Gear.

We, AUTOK AKTIENGESELLSCHAFT  
FABRIK FÜR TRIEBKETTEN, of Frankfurter  
Allee 319, Berlin O. 112, Germany, a  
German company, do hereby declare the  
5 nature of this invention and in what  
manner the same is to be performed, to  
be particularly described and ascertained  
in and by the following statement:—

This invention relates to improvements  
10 in sprocket wheel gears of the type in  
which each link of the chain is provided  
with two teeth extending to one side while  
the other side of the link is smooth.

The invention consists in that the ends  
15 of each link of the chain are formed  
towards the smooth side as tooth flanks.

With this construction of the chain it  
is possible, without modifying the main  
sprocket wheels, to cause the rear of the  
20 chain to co-operate with a toothed wheel  
the pitch of which is double that of the  
main sprocket wheels and which may be  
used to stretch the chain and, if neces-  
sary, to transmit power.

The invention will be more particu-  
larly described with reference to the  
accompanying drawing showing by way  
of example an embodiment thereof.

Figure 1 shows in side elevation a chain  
drive with a sprocket wheel engaging  
with the front side of the chain, and an  
additional sprocket wheel engaging with  
the rear side thereof.

Figure 2 is an elevation of a chain  
35 link on an enlarged scale.

Figure 3 is a plan of the sprocket wheel  
in engagement with the rear side of the  
chain.

The chain is composed in the usual  
40 manner of a plurality of adjacently dis-  
posed rows of chain links *a* provided with  
teeth. In the case shown as an exempli-  
fication seven rows are employed. Each  
toothed link possesses tooth flanks *b* and  
45 *c* at its front and rear ends on both sides  
of the plane A—B which may be  
imagined to pass through the axis of the  
chain bolts. The tooth flanks *b* enclose  
the same face angle as the tooth flanks *c*.

Moreover, every chain link possesses the 50  
usual inner tooth flanks *d*. The tooth  
flanks *b* and *d* on the front side of the  
chain co-operate with the chain wheel or  
sprocket wheel *e*, while the flanks *c* are  
adapted for engagement with the teeth of 55  
the chain or sprocket wheel *f*. The teeth  
of said sprocket wheel *f* are arranged in  
staggering rows or alternating with each  
other. Each of the rows of teeth *g* and *h*  
possesses a division of pitch line twice as 60  
large as that of the wheel *e*. The chain  
wheel or sprocket wheel *f* is preferably  
composed of several toothed discs stagger-  
ingly or alternatively arranged with rela- 65  
tion to each other as shown in Figure  
3. The said toothed discs may be con-  
nected to each other in any suitable  
manner.

The invention has been shown and  
described in its broad aspects and it 70  
should be understood that the shape of  
the parts may be changed and other  
alterations and modifications may occur  
within the ambit of the claims hereunto  
appended. 75

Having now particularly described and  
ascertained the nature of our said inven-  
tion and in what manner the same is to  
be performed, we declare that what we  
claim is:— 80

1. A sprocket wheel gear in which each  
link of the chain is provided with two  
teeth extending to one side while the  
other side is smooth, characterised in that  
the ends of each link of the chain are 85  
formed as tooth flanks (such as *c*) towards  
the smooth side.

2. Double sided chain drive substan-  
tially as described with reference to the  
accompanying drawing. 90

Dated this 12th day of March, 1925.

AUTOK AKTIENGESELLSCHAFT  
FABRIK FÜR TRIEBKETTEN,

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Chartered Patent Agents.